DOCUMENT RESUME

ED 317 772 CE 054 519

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TITLE Industry-Based Bilingual Vocational Training. A Review of Related Literature.
SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE Feb 90
CONTRACT VN89002001
NOTE 103p.
PUB TYPE Information Analyses (070)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS Adult Basic Education; *Adult Literacy; Bilingual Education; *Bilingual Education Programs; Cost Effectiveness; Cross Cultural Training; *Demonstration Programs; Educational Needs; Employment Practices; Job Skills; *Limited English Speaking; Literacy Education; Models; *On the Job Training; Program Costs; Work Environment
IDENTIFIERS *Workplace Literacy

ABSTRACT

Drawing upon published research, reports, and critical analyses, this paper examines the major issues involved in helping private business and industry face the challenge of effectively training limited-English-proficient (LEP) employees. The literature review is part of a larger project that is developing nine demonstration private industry/education partnership programs in industry-based bilingual vocational training and a handbook to help start other industry-based programs. Material reviewed in the paper is limited to that answering the general question, "What do we need to know to provide the best assistance and to develop a handbook?" The paper examines six major topics, drawn from a preliminary analysis of the existing literature as it reflects the project's anticipated needs: (1) workplace literacy and its relationship to bilingual vocational training; (2) job-related language skill training needs of LEP employees; (3) cross-cultural communication needs in the workplace; (4) successful workplace training program models for LEP adults; (5) components of successful public/private partnerships; and (6) economic costs and benefits to industry in providing such training. (Includes a 10-page bibliography.) (KC)

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INDUSTRY-BASED BILINGUAL VOCATIONAL TRAINING

A Review of Related Literature

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Prepared for:

Office of Vocational and Adult Education
U.S. Department of Education

February 1990

Contract No.: VN89002001

CE054519

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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PURPOSE AND ORGANIZATION

The purpose of this paper is to examine the major issues necessary to understand what can best be done to help private business and industry face the challenge of effectively training its limited-English proficient employees. This elaboration will draw upon the research, thoughtful speculation, efforts reported and critical analyses already available in published sources.

The paper has at least two intended audiences: a) those in education and training roles from both the private and public sectors who work in employee training programs for limited-English proficient (LEP) adults; and b) the authors, as we prepare to provide assistance to the former group. It should be noted that this literature review is part of a larger project with the following objectives:

- to develop nine demonstration private industry/education partnership programs in industry-based bilingual vocational training across the U.S.;
- to provide technical assistance to those programs; and
- to develop a handbook which will enable other industry-based programs to effectively provide work-related training to their LEP employees.

Because of this focus on the larger project, material reviewed is limited to that which answers the general question: "What do we need to know to provide the best assistance and to develop a handbook?" Some otherwise excellent sources and topics may, therefore, be excluded as a result. For example, there is a wide body of literature on workplace literacy and training needs of

employees, but we have used that broader literature only as background or context for the LEP-specific focus, thus treating the broader literature only cursorily.

The paper is organized into six major topics, drawn from a preliminary analysis of the existing literature as is meshed with the project's anticipated needs. These topics, in some cases overlapping, are:

1. Workplace literacy -- the meaning, the movement, the research and its relationship to bilingual vocational training;

2. Job-related language skill training needs of LEP employees;

3. Cross-cultural communication needs in the workplace;

4. Successful workplace training program models for LEP adults -- those addressing language, vocational, and cross-cultural communication skills; those in classroom, "laboratory," and on-the-job training settings;

5. Components of successful public/private partnerships;

6. Economic costs and benefits to industry in providing such training.

INTRODUCTION

The changing nature of the American Workplace is one of the primary forces behind an increase in private sector involvement in sponsoring workplace literacy programs. Among those forces, in no priority order, are the following. First of all, there will be a decline in the number of adults entering the workforce by the year 2,000 and less than 40 percent will be between the ages of 16-35 (Johnston & Packer, 1987). Young adults have traditionally taken on unskilled or semi-skilled entry-level jobs, either to stay in them for the long term or to advance to higher level jobs building on their continuing education, training, or experience. With a decrease in the young adult population, there will continue to be a general shortage of entry-level workers.

Second, a population group in the United States which is growing ever more rapidly is that of limited-English speakers, as a result of recent waves of immigration and the sustenance and growth of heavily populated non-English speaking communities across the country. Because of the limited-English language abilities of these individuals, they have difficulty entering the workplace, and advancing within it once they do enter. Yet, they are becoming more of a presence in the labor force, and industry is necessarily depending upon them to fill the jobs which once were taken by more English-proficient young workers. The Hudson Institute estimates that by the year 2,000, 80 percent of those entering the workforce will be women and minorities (Johnston & Packer, 1987).

A third factor operating in American business concerns ever more rapidly shifting market orientations. Spurred mainly by the phenomenal growth of high technology, decrease in manufacturing and concomitant increases in the service sectors, companies have adjusted their markets, products and services more rapidly in the past decade than ever before. As a company shifts its products and services, it can either hire new employees who can perform the new functions (while laying off the employees whose functions were disbanded), or it can retrain its current employees for the new roles (Choquette, 1988).

Studies show that this older, more culturally diverse population will face a job market in which 40 percent of the new occupations will be in the professional, managerial and technical arenas and will require a post-secondary education (Johnston & Packer, 1987). In 1987, the U.S. Department of Labor (Howell, 1988) projected that high-tech jobs such as data processing, computer mechanics, computer programmers and analysts, and medical records technicians will experience the most rapid growth.

Some experts predict a that a two-tiered market looms: at the top, the highly-educated information/service specialists; at the bottom, entry-level service workers (Howell, 1988). Conflicting statistics as to the percentage of these entry-level service jobs are reported. Some speculate that the low-skill jobs will decrease from 40 percent today to 27 percent by the year 2000 (Johnston & Packer, 1987). Others (Hodgkinson, 1983; Howell, 1988) predict a significant increase, to 60 percent of workers, for jobs such as

janitors, nurses' aides, sales clerks, cashiers, waitresses, food preparation workers, secretaries and truck drivers.

Whatever the percentage, the literacy requirements for these entry-level positions are likely to increase; "jobs that are in the middle of the skill distribution today will be the least-skilled occupations of the future" (U.S. Departments of Education and Labor, 1988, p. 4). Most experts (Choquette, 1988; Deans, 1988; Elfenbein, 1983; Mann, 1983; and the U.S. Departments of Education and Labor, 1988) predict that computer technology which has infiltrated and reorganized nearly every aspect of the work world will continue to demand more advanced literacy skills of its workers.

The Dictionary of Occupational Titles (1981) lists the language and mathematics requirements of occupations. Of the 20,000 occupations included, some 5,000 require no higher skills than adding two-digit numbers and recognizing 2,500 two- and three-syllable words. But many job applicants (and even incumbents) cannot perform those tasks; no occupation lists zero literacy requirements; and those occupations with minimal requirements are the shrinking ones (U.S. Employment Service, 1981, p. 19).

In addition to raising literacy requirements, technological advancements continue to threaten the job security of workers. By 1975, computers at the Prudential Insurance Company had already eliminated "level 1" of the secretarial jobs and have continued to absorb more and more of the lower-level clerical load (Mann, 1983). Whereas it used to take 68 machine operators 16 days to construct

a railroad locomotive, it now takes a computerized assembly line one day with no workers on the line (Hodgkinson, 1983). The tragic irony of all this is that as the private sector struggles with a serious labor shortage, the jobless rate may skyrocket (Hodgkinson, 1983).

The need for employers, in collaboration with government agencies, to take immediate action to counteract the wave of plant closings and the increased levels of foreign competition by offering retraining programs for displaced workers, is apparent. Without such basic skills training the economic prosperity of this nation will continue to diminish. The creation of programs like the Massachusetts Worker Assistance Centers -- which have been successful at retraining and placing 77 percent of the 10,881 laid-off factory workers at their former salaries in a variety of high-tech and insurance companies -- is essential (Anderson, 1988). Retraining programs are a special challenge for limited-English-proficient (LEP) workers who are often handicapped by poor literacy and computational skills, in addition to their language difficulties.

In 1985, the National Assessment of Educational Progress (NAEP), assessed the literacy capabilities of 3,600 young adults, ages 21-25. The most striking NAEP finding was that the overwhelming majority (95 percent) of the young adults were competent at the lower levels of each of the three types of literacy skills tested. But as tasks increased in complexity (moderate to high), the young adults' literacy performance dropped

dramatically, with black and Hispanic youths performing significantly lower than their white counterparts. (Kirsch, 1986). These more complex literacy skills -- the ability to reason, evaluate, and problem-solve -- are the skills needed to function effectively in the workplace. Estimates are that over 80 percent of job-related reading tasks tap skills at the inferential and critical levels (Mikulecky, 1984). While it is not known to what extent the achieved levels of proficiency of young adults are sufficient to meet the increasingly diverse and complex needs of the workplace over the coming decades, it is clear that workplace programs will have to develop special strategies to train LEP workers and other minorities in these more complex literacy skills.

Faced with an inadequately "literate" workforce, a major need for retraining of workers, and growing numbers of limited-English proficient workforce members, private business is investing more effort and resources than ever before into training and basic skills development. As it does so with limited-English proficient workers, it faces barriers unseen in traditional programs. This set of problems is the focus of the present paper.

PART 1. WORKPLACE LITERACY

Bilingual Vocational Training programs focus their curriculum and instruction on the real language and skill development requirements of the job. Bilingual Vocational Training (BVT) programs ideally teach the required job skills and immediately related English language skills in a transitional manner -- that is, the instruction is more dependent on the trainees' native language early on, and moves toward total use of English language near the end of the training. Thus, job skill development does not wait for complete English language mastery, but proceeds along with it. Research into the nature of workplace literacy provides useful information about authentic job-related literacy and basic skills. Such information is useful in planning curriculum and handbook materials for BVT programs in the workplace.

This section that follows discusses general research findings regarding workplace literacy, and identifies areas of relevance to training programs for LEP adults.

A survey of the history of workplace literacy serves to point out the need for training programs such as BVT to address authentic job-related basic skills including language requirements. The earliest substantive inquiry into the literacy demands of jobs occurred as early as 1975. Workplace literacy is in its infancy: "research about the relationship of literacy to job performance is sketchy" (Mikulecky and Echlinger, 1986). Over the past decade, adult literacy researchers, Sticht and Mikulecky in particular,

have added much to knowledge about workplace literacy.

Historically, employers have tried to estimate job-related literacy demands by conducting general job analyses or relying on indices such as the Occupational Outlook Handbook (U.S. Department of Labor, 1978-79). These efforts, however, have been of limited value because the information garnered (i.e., literacy requirements listed in terms of high school/GED diplomas, in-house trainings, etc.) was often too general or arbitrary to be useful. In addition, the job descriptions were rarely derived from an in-depth analysis of actual job tasks (Chang, 1987; Mikulecky & Diehl, 1980). It was not until Sticht (1975, 1981, 1987) began to probe the relationship of literacy and its connection with job performance in military occupations that a new direction for occupational literacy was charted.

With the advent of the Vietnam War, the Department of Defense was forced to drop its policy of nonacceptance of lower aptitude applicants. In order to advance the literacy skills of enlistees, the Department launched Project 10,000 under the direction of Sticht and his colleagues at Human Resources Research Organization.

Mindful of the earlier failures of traditional remedial training programs to impact positively on job performance, Sticht (1975) set out to determine the actual literacy demands of military jobs (87% of which were compatible with civilian jobs) including the readability levels of military texts. Based on his findings, he designed a training program that would teach job-related literacy skills using the actual job materials.

Sticht found that six weeks of focused job-reading training resulted in a two-year increase specific to job-reading skills; improvement was retained over a three-month period. "Personnel retained 80% of the end-of-course gains in general reading" (Sticht, 1981). He strongly advocated the use of actual job materials during the training sessions. Other significant contributions that Sticht made to occupational literacy include the categorization of job materials into two types (reading-to-do and reading-to-learn) and the discovery that 75% of the job-related military material fit the reading-to-do category. The reading-to-do tasks -- primarily fact-finding and following directions -- were highly repetitive in nature. Sticht, in collaboration with Ford and Caylor, also developed a new readability formula forecast for use with job-related materials.

Recognizing early on that military literacy programs are not generalizable to the general population, Sticht (1975) urged researchers to investigate literacy demands of various occupations. Mikulecky, Sticht's counterpart in the civilian world, extended and refined Sticht's work as well as charted new directions for work-place literacy. In an extensive investigation of 100 occupations (ranging from vice president to assembly-line worker) in 26 workplaces, Mikulecky and Diehl (1980) interviewed and tested 100 workers on the job in order to determine the literacy demands inherent in this broad range of jobs. Their major findings, and our comments on them, are summarized below:

- A significant proportion of the work-day, regardless of the level of the job, involves reading. High level occupations tended to involve more reading but not significantly so.

- There is a distinction between literacy demands and literacy availability: it may be that the demands are not increasing but that the opportunities to use print to help carry out a job task are increasing (Mikulecky & Diehl, 1980, p. 224).

- Grover, Seager, and DeVries (work in progress) found through conducting direct observations of entry level workers that real job literacy requirements demand literacy skills considerably lower than that indicated by examining training manuals and other workplace materials not directly related to job literacy tasks.

- If literacy demands are not perceived as vital, it is possible that workers of limited literacy abilities are excluded from employment because of inaccurate appraisals of job-related literacy demands.

- Increased literacy doesn't always result in job mobility according to Harmon (1987).

- Job related reading tasks are often highly repetitive in nature; 61 percent of the reading tasks were executed on a daily basis. In addition, 63 percent of the tasks were categorized as reading-to-do tasks requiring workers to consult a piece of reference material, extract needed information and apply it immediately to the job task at hand.

- Mikulecky and Diehl (1980) speculated that the literacy demands of job related tasks differed substantially from literacy demands of school-related/training-related tasks.

- In 1982, Mikulecky found that workers face substantially different literacy demands in the workplace than they had in school, demands for which school did not prepare them.

Mikulecky's recent research efforts (1983, 1986) have probed the literacy demands of single occupations and moved workplace literacy out of the basic skills arena and into the realm of

cognitive processing. In an attempt to ascertain the relationship between literacy abilities and on-the-job performance, Mikulecky and Echlinger (1986), attempting to replicate an earlier study conducted with nurses (Mikulecky & Winchester, 1983), collected data on the literacy abilities, job literacy demands and job performance ratings of 29 electronic technicians. The technicians represented three levels of employment: trainees, experienced workers, and supervisors. The researchers found that while no significant differences in reading abilities existed among the three employment groups, the top job performers at each level of employment exhibited greater levels of metacognitive awareness than did average job performers. Thus, superior workers at the trainee, experienced, and supervisory levels outscored their average peers on their understanding of the uses and powers of literacy and their ability to regulate the literacy processes.

Another "single occupation" study reported interesting results with regard to basic skills and metacognition. Heinemann (1979) audited the literacy abilities of 30 secretaries, each performing satisfactorily according to their supervisors. (No data were collected on their reading abilities, only that each secretary had at least a high school diploma.) The literacy tasks used in the study were designed on the basis of a literature review and interviews with supervisors, a procedure not advocated by most experts (actual observation of the job tasks is usually recommended). Heinemann (1979) found that the secretaries experienced difficulties at both the basic skill level (i.e.,

capitalization, spelling, use of verb tense, following directions) and the metacognitive level (i.e., "Judging the significance of business-related events" and distinguishing main ideas from details). Heinemann (1979) urged employers to offer seminars that covered both the basic skill aspects of literacy and the higher level metacognitive aspects.

This would seem to indicate that LEP workers will need to develop an understanding of the powers of reading as a reference and information tool in addition to developing their ability to read and fill out work-related documents. They will also need a deeper understanding of their jobs than they might be able to gain in English, indicating a need for bilingual training as well as ESL.

In a paper for the Institute for the Study of Adult Literacy at Pennsylvania State University, Mikulecky, Echlinger and Meenan (1986) noted that current teaching of writing in schools and adult education programs does not prepare learners for the type of writing required in the workplace. They recommended that the learner be given an opportunity to experience a wider range of real world print materials and use them for solving problems and completing tasks. Further, they suggested that, as is done in the workplace, these writing processes should involve students in discussing and working with others and thinking through the purpose, the audience of the written communication and the multi-step plans required to carry out the writing task.

Mikulecky and Echlinger (1986) offer a succinct synthesis of workplace literacy research:

- o literacy is called for in most jobs;
- o workplace literacy differs from school literacy in that workplaces require the use of a variety of materials while schools do not;
- o literacy in the workplace is repetitive and usually for the purpose of accomplishing a task;
- o workplace literacy is a social phenomenon that includes asking questions and gathering information from other workers;
- o workers tend to read job material with higher levels of proficiency than they do general material;
- o training for a job usually is more demanding in terms of literacy than is performing the job; and
- o workplace literacy is multi-modal in nature (rarely are reading, writing and speaking found in isolation) (p. 43).

Implications of this for LEP adults underscore the value of both vocational ESL and bilingual support to enhance the ability of workers to work with others to effectively complete work-related writing tasks.

These include:

1. <u>The repetitive nature of literature tasks in the workplace</u>. Through literacy task analysis (Grover, Seager, DeVries, work in progress) one can identify common communication tasks and design a focused oral language curriculum that will have more application for LEP workers than would a general ESL curriculum.

2. Workplace literacy as a social phenomenon. As was discussed earlier, interactions with written materials in the workplace as well as those related to the performance of non-literacy tasks are often conducted through gathering information from other workers. Thus, developing communicative and problem solving competence is an important focus for LEP workplace literacy programs.

3. The need to apply metacognitive skills. In order to develop the ability to judge the significance of job-related events and make sound judgments, LEP workers will need to have a deeper understanding of their jobs than they might be able to gain in English. This indicates a need for bilingual vocational training as well as ESL instruction.

4. Understanding and using the powers of literacy as a reference and information tool. To develop superior job performance, LEP workers need to learn how to use job-related reference materials. They also need to be taught how to read and fill out job-related documents.

Summary

Detailed analysis of the literacy demands of specific jobs began with Sticht and his work with the military in 1975. Since then others have investigated the literacy needs of particular jobs and have found that there is substantial use of reading and writing on the job, that literacy use is repetitive and social in nature, including asking questions and gathering information from other

workers, and that employees are not prepared in school for marketplace literacy demands. Researchers have found that not only is there a need for basic skills but also for higher cognitive processing. The areas of primary importance for LEP employees include:

- the repetitive and social aspects of literacy;
- the need to apply metacognitive skills; and
- the uses of literacy as a reference and information tool.

In the literature there were few detailed studies on the relationship between literacy and job performance. Also missing were studies that specifically investigated the basic skills and metacognitive aspects of literacy of LEP adults and how their literacy skills affect their job performance. Further study based on direct observation of LEP workers on the job is needed to specify the literacy demands for them of particular jobs. More detailed analysis of literacy materials used in performance of the job is needed to determine the nature and difficulty level of literacy tasks. Comparison of particular literacy levels of job tasks with the assessed literacy skills of employees is needed to develop more suitable workplace assessment tools.

PART 2. JOB-RELATED LANGUAGE NEEDS OF LEP EMPLOYEES

General English Language Needs For The Job

When the question is posed, "What are the job-related language needs of LEP employees?", the answer is, in a word, English. This is clearly true for all but a few jobs in completely monolingual non-English speaking environments (e.g., kitchen help or cook in an ethnic restaurant) or for jobs of a simple routine nature in which at least one member of a group can speak or read English, and thus communicate with managers and workers, and for which there is little or no opportunity for advancement (e.g., fish cleaning or meat packing operation). Cangampang and Tsang (1988) point out numerous examples of entry-level jobs most often taken by limited-English speakers in California in the manufacturing and service sector, such as seamstresses, janitors, machine operators, and retail clerks. In each case, they indicate that the jobs involve contact with English speakers, reading instructions, reading and correctly following safety regulations, at a minimum (pp. 16-19). Entry into, or advancement into, higher level jobs require more advanced levels of English proficiency, written, oral, or both. Such positions as clerical or health care workers, food service workers in direct contact with customers, retail clerks, or supervisors in manufacturing jobs require good listening, speaking, reading and writing skills in English.

All of the general language needs mentioned above are as valid for those proficient in English as for LEP employees. There are

different emphases for the two groups, however, which are not always generally understood, especially in the workplace context. As one author states it:

> Usually literacy is thought of as the reading and writing skills required by persons who already speak English.... Limited-English speakers can't get by in this way, however, because they don't know how to listen, comprehend, and utter the spoken language. Thus, ESL experts consider the development of speaking and listening skills to be a prerequisite for learning to read and write.... But the limited-English speaker also needs communications skills for the workplace, even in the most basic, entry-level jobs. Though workers frequently learn routine tasks by watching demonstrations of coworkers, the reality is that routines are interrupted, new assignments are given, and equipment breaks down. Workers need to be able to inform supervisors about problems, and supervisors need to be understood when they give instructions and make requests. (Job-Related Basic Skills, June, 1987, p. 4).

The foregoing item highlights the need for speaking and listening skills on the job for LEP adults, emphasizing it as a prerequisite for conventional literacy needs. In the same article, however, Carol Swendsen indicates that real work situations require higher level understanding in those communications.

> It is not enough for workers to listen mutely and follow orders. They have to verify their understanding of what they need to do before making serious mistakes. They have to ask questions about specific parts of instructions. When something happens they were not prepared for by their training, they have to indicate the nature of the problem. And they have to do this in a polite way in order to stay on good terms with their supervisor or coworker (Job-Related Basic Skills, June, 1987, p. 4).

So not only are understanding of the task performance, operation of the equipment, and vocabulary related to those tasks and operations important, but also cross-cultural innuendos must be mastered for successful job performance.

The results of Mrowicki's (1984) study underscore that the problems identified above represent real needs for LEP workers. She surveyed 52 employers in the Chicago area, asking them to rate "communication problems on the job" for their refugee employees. Six language-related factors were perceived as problems in this order:

1. Failure to ask when something is not understood (78% rated this as a greater than average problem);
2. Ability to understand company policy (65%);
3. Ability to report problems on the job (63%);
4. Following directions (54%);
5. Obeying safety regulations (45%);
6. Relations with other employees (13%) (p. 3).

Latkiewicz (1982) found that employers rated Indochinese workers more positively than other non-LEP employees in attributes related to the work ethic (reliability, honesty, cooperativeness, industriousness, and ambition). The most important problem identified by respondents was language, with 83 percent of employers surveyed mentioning it as a major obstacle to employment. Overall the findings of all three studies identified language rather than job skills or cultural differences as the major source of other job related problems.

Underlying each of the specific needs identified above appears to be a general need for LEP workers to be able to speak, listen, read, in some cases write, and to have good comprehension of both written and oral communications. Those are often considered to be

"basic skills." Yet the implication is not simply to teach those basic literacy skills to LEP workers in a general manner, for it is the context of the workplace performance which appears most important in practice. That is, in studies of general employee groups, basic skills as assessed by general or academic measures are only slightly related to job performance. "It appears likely that, in relation to job performance, it is considerably more important to apply basic skills in specific job situations than it is to demonstrate such skills on standardized tests" (Sticht and Mikulecky, 1984, p.7). Since job performance is related to specific work-context knowledge of basic skills, it is reasonable to infer that training of employed adults in basic skills is best conducted in job- or workplace-specific contexts. It is all the more reasonable to assume that this principle applies most strongly to LEP employees. More concrete applications of basic skills learning are necessary to bridge their gaps in understanding the American workplace.

Job Specific English Language Needs

An excellent source of specific technical language process needs for a wide variety of occupations is Vocational Careers in Which A Language Other Than English is an Asset (Feldman, Nicholau & Clelland, 1982). In the book, the authors cover 15 occupations (e.g., food service, recreation and tourism) and 113 specific jobs (e.g., kitchen helper, park aide). For each job title they delineate the language skills needed, both oral and reading/

writing, for both English and the other language. For example, they state that bank clerks' needs are:

> English: Oral skills: conversing with customers in person or on the phone.
> Reading/Writing skills: record keeping, preparing monthly statements, check sorting.
> Other Language: Oral skills: conversing with customers (p. 31).

Furthermore, they suggest that for banking occupations in general, ESL "classes could concentrate on letter writing, telephone and interviewing skills, as well as dealing effectively with customers in a courteous and helpful manner" (p. 23).

In considering language needs for specific job skills, it is recognized that language specific to particular vocations and job functions, as well as to job performance, need to be included in the delineation of training needs. That is, for an auto mechanic's training, one needs to identify as training needs the ability to locate a carburetor in a manual diagram and on an actual engine, to pronounce the word carburetor, to spell it, as well as to know how to adjust, remove, and replace an actual carburetor.

Clearly, however, we cannot detail such needs for even one moderately complex job in this review. As a result, the focus is on formal processes for identifying language-related vocational skill training needs of LEP employees. Two fruitful sources are available. The first is drawn from ESL in the Workplace: English for Specific Purposes in the Work Setting (Center for Applied Linguistics [CAL], 1982, pp. 5-12). CAL recommends a thorough

investigation of employee needs, including interviews with management and supervisors, observations of the worksite, and consultations with co-workers, before beginning a training program. In observations of the worksite one examines what the employees must read, write, say, and understand. The language functions examined in those contexts include the language used:

- in social interactions: greetings, farewells, ways of addressing co-workers, talking with co-workers in the cafeteria, working as part of a team;
- for a specific job: responding to instructions, making requests, helping others, keeping records, following safety regulations;
- for increased responsibility: describing the process of the whole plant, addressing a variety of people, giving messages, carrying messages, writing notes, using the telephone, initiating conversation;
- for inquiring about formal procedures: questioning about wages, holidays, leave, fringe benefits, using the clinic and credit union, discussing grievances.

Finally, CAL's recommended procedures for more formally assessing the language needs of LEP employees include interviews and oral or written administration of simple pencil-paper tasks. A set of 10 interview questions is presented to assess the literacy related to social contact. With this set, the instructor observes and discusses such items as:

1. Opening greetings.
2. Self-identification: What's your name?
3. How do you spell your name?
4. Where do you live?

More job-specific language needs assessment can be done using an interview with the following 10 questions, or an adaptation of them for a particular job:

1. What's your job?
2. What do you do on your job?
3. What happens to the product before it reaches you?
4. What do you do to it?
5. What happens to it after it leaves you?
6. What time do you start work?
7. What's the first thing you do when you get to your work station?
8. Do you get more work done in the morning or in the afternoon?
9. What problems do you have in this job?
10. Who do you go to if you need help?

The second useful source of workplace language needs assessment guides is in Promising Programs & Practices (Chinatown Resources Development Center [CRDC], 1985, pp. 24-29). The CRDC guides have some overlap with those in the CAL document, but use of both sources may provide a more comprehensive base for the assessment, and either may be more useful for some settings than for others. The context of the CRDC procedures is that of setting up a Vocational English as a Second Language (VESL) curriculum to coincide with the job skills training. The first step they recommend in developing the VESL curriculum is to identify the communicative functions that are to be taught based on workplace needs. To do so, the curriculum developer must establish a list of these communicative functions. A representative list of 44 such functions, adapted from Jupp and Hodlin (1975), is presented. It includes such items as: counting numbers, talking about measurements, getting the attention of a colleague, indicating failure to hear or understand, understanding and talking about a diagram, and inquiring about possible dangers.

To develop such a list, the curriculum developer needs to collect basic information about the workplace, using such sources as supervisor and co-worker interviews and job site observations, as recommended by CAL above. But CRDC also suggests analysis of written documents such as company manuals, safety information, job application forms, job descriptions, and in-house training materials. The questions one can use to analyze such documents, interview records, and observations include the following, among others presented in the book:

1. Functions: Does the worker have to:
   - report or describe?
   - ask questions?
   - clarify instructions?
   - greet people?
   - express agreement or disagreement?

2. Situations: Does the worker have to:
   - make small talk with customers?
   - get tools/parts/supplies from another person?
   - arrange a schedule with someone else?
   - explain malfunctions?

3. Vocabulary:
   - What words and phrases are used?
   - Does the worker have to aurally understand these words?
   - Does the worker have to say these words? read them? write them?

Summary

A consensus among observers and evaluators indicates that not only are general English language skills of speaking, listening and understanding important for almost all job performance, but also reading and writing skills for all but the most basic entry-level jobs. Additionally, the oral and written comprehension must

go beyond the literal level so that LEP employees can use English to verify their understanding, point out problems, and recognize and use cultural cues appropriately. It is likely the case that training programs for LEP employees tend to give short-shrift to most of the skills identified above because of pressure to train employees as rapidly and inexpensively as possible. If so, the long-term training benefits are reduced. What is absent in the literature found for this review is any research on the short or long-term impacts of language training which goes beyond minimal skills in contrast to training in higher-level skills. The other major point of this section is that for language training to be most effective, it should be taught in the workplace context. Again, research investigating that inference as a hypothesis is lacking.

PART 3. CROSS-CULTURAL COMMUNICATION IN THE WORKPLACE

The field of cross-cultural communication examines the communications that take place between people of different cultures. These are complex encounters often characterized by different values, beliefs, perceptions and styles of speaking. Applications include training for Peace Corps and international development workers and more recently, for managers in international business working overseas. During the 1960's, as the civil rights movement resulted in inter-racial workforces, there was a practical need to understand and deal with the resulting inter-racial and intercultural conflicts (Pusch, 1979). With the large influx of refugees and the legalization of immigrants in the 1980's, the attention of service providers has become increasingly focused on the language and cultural skills needed for those populations to gain employment, retain a job and to advance on the job. This has resulted in the application of cross-cultural awareness concepts to the ESL classroom, the pre-employment training of refugees and immigrants, and even more recently to training supervisors and co-workers of LEP workers.

This section briefly introduces the field of intercultural communications and examines some of the culture-related barriers to entering employment, performing on the job and advancing on the job. Finally, the resources for training and support services to help overcome those barriers are discussed.

Introduction to the Field of Intercultural Communication

In her summary of the development of the field of intercultural communication, Pusch (1979) shows how the field grew out of immediate experience and practical need to address the issues of Americans in an increasingly pluralistic society and the problems of international business and international development workers. Much has been written in the past decade about the need for cross-cultural training for business communications and management effectiveness abroad, as businesses attempted to decrease the expenses resulting from a high return rate for personnel and their families from assignments abroad, and the costliness of what Pusch (1979) calls a "negative attitude of cordial dislike that many American businessmen are engendering in foreign nationals" (quoted in California Cultural Awareness Resource Guide, Hemphill & Low, 1984, p. 95). Thus, the number of organizations (business, government, religious, academic, private consulting) offering intercultural effectiveness training for employees is growing. Publications of the International Society for Intercultural Education, Training and Research abound with training manuals for multicultural managers, culture specific materials on how Americans and people from other national backgrounds see and do things differently and how this effects our interactions. They also include cross-cultural training materials such as handbooks, exercises and simulations, training videos and tapes.

According to Pusch (1979), one of the challenges facing the field of cross-cultural communications at this time is the

separation of the international intercultural focus and the domestic interethnic focus. With the increase in immigrants and refugees over the past decade, it is likely that this separation will disappear. The issues facing managers and workers abroad are coming to our factories, hospitals and businesses here in the United States. Tsang (1989) discusses the recent influx of large numbers of nurses from the Philippines to help fill the shortage of nurses in California and the resulting cross-cultural issues. As has been discussed earlier, the U.S. workforce in the coming decades will be increasingly made up of people for whom English is not their home language. Already there is foment in the refugee resettlement field over the tendency of refugees to be funnelled into dead-end entry level jobs in this country (Tollefson, 1989). This practice is interesting in the light of publications of various state task forces and private industry groups which state that what business and industry want are workers with strong skills that will enable them to be retrainable in response to the changing demands of the workplace and will make them promotable within the company (Employability Skills Task Force, 1988; U.S. Dept. of Labor, et. al., 1988; American Society for Training and Development, et. al., 1988).

Barriers Related to Problems in Cross-Cultural Communication

With the available pool of workers for the next decade increasingly being drawn from the LEP population, it is increasingly important to address the need to remove the barriers

to employment and effective job performance for LEP workers. An article in the Business Council for Effective Literacy (BCEL) Newsletter states:

> Recent research confirms that new immigrants and indigenous minority groups will make up a growing part of the labor force in the years to come... Indeed health, food, and other service industries already depend heavily on these population groups, and entry level jobs throughout business and industry now are filled by substantial numbers of such people. Many have poor basic skills. But they are doubly handicapped because they also lack the ability to adequately speak and understand English or to understand the "culture" of the environments in which they live and work (Job-Related Basic Skills, 1987, June, p. 5).

A recent joint publication of the U.S. Departments of Labor, Education, and Commerce, Building a Quality Workforce (1988), summarizes business' workplace needs for entry level workers with stronger basic skills, and also notes a need for employees with positive attitudes, and the ability to be flexible, solve problems, work independently, take pride in their work and "work cooperatively with people of different personalities, race, sex, across different authority levels and organizational divisions" (p. 18). Providing workers with the skills to work cooperatively across such barriers is challenging in any setting, but is particularly so in multicultural settings. This section looks at some of the skills employers have identified as needed in today's workforce and the cultural-related barriers for LEP employees.

The Employability Skills Task Force (1988) identified three categories of skills that will be required of Michigan workers in

the future: academic skills, personal management skills, and teamwork skills (see Table 1, Employability Skills Profile). Other publications from business and industry previously cited identify the need for similar skills. Each of these categories of skills is discussed briefly in identifying cultural barriers for LEP workers.

Academic Skills

Academic skills and spoken English present special problems for LEP workers. Beyond the obvious problems in making themselves understood by their clients and co-workers are more subtle problems resulting from the cultural dimensions of language.

Tsang (1989) discusses the linguistic and cultural the barriers Asian Americans face in gaining access to employment and in communicating their competence once on the job. One such barrier is the tendency of native speakers to subconsciously evaluate and interpret the abilities and intentions of others through both verbal and written language behavior. An obvious example of this is the perception that workers having problems with English grammar are not competent (Gumperz, 1982; Halliday and Hassan, 1976).

In discussing a more subtle manifestation of the cultural dimensions of language, Tsang (1989) shows that speakers are evaluated according to their ability to employ the proper speech conventions in ways that are acceptable to the dominant group. He gives a series of examples quoting actual responses of Asian-

TABLE 1

EMPLOYABILITY SKILLS PROFILE

Three Categories of skills will be required of Michigan workers in the future:

ACADEMIC SKILLS (Those skills which provide the basic foundation necessary for a person to get, keep, and progress on a job)	**PERSONAL MANAGEMENT SKILLS** (Those skills related to developing the attitudes and behaviors required to get, keep, and progress on a job)	**TEAMWORK SKILLS** (Those skills needed to work with others on a job)
MICHIGAN EMPLOYERS WANT A PERSON WHO CAN: o Understand spoken language and speak in the language in which business is conducted. o Read written materials (including graphs, charts and displays). o Write in the language in which business is conducted. o Understand and solve problems involving basic arithmetic and use the results. o Use the tools and equipment necessary to get a job done. o Access and use specialized knowledge when necessary (e.g., the sciences or skilled trades) to get a job done. o Think and act logically by using the steps of the Scientific Method (i.e., identify problems, collect information, form opinions and draw conclusions).	MICHIGAN EMPLOYERS WANT A PERSON WHO CAN: o Identify personal job-related interests, strengths, options and opportunities. o Demonstrate personal values and ethics in the workplace (e.g., honesty, fairness, and respect for others). o Exercise a sense of responsibility. o Demonstrate self control. o Show pride in one's work. o Be enthusiastic about the work to be done. o Follow written or verbal directions. o Learn new skills and ways of doing things. o Identify and suggest new ideas for getting a job done. o Be a leader or a follower depending upon what is necessary to get a job done.	MICHIGAN EMPLOYERS WANT A PERSON WHO CAN: o Identify with the goals, norms, values, customs and culture of the group. o Communicate with all members of a group. o Show sensitivity to the thoughts and opinions of others in a group. o Use a team approach to identify problems and devise solutions to get a job done. o Exercise "give and take" to achieve group results. o Function in changing work-settings and in changing groups. o Determine when to be a leader or a follower depending upon what is necessary to get a job done. o Show sensitivity to the needs of women and ethnic and racial minorities. o Be loyal to a group.

(Employability Skills Task Force, 1988, p. 5)

American professionals to questions put to them by their supervisors, illustrating that "responses can convey the wrong signals when persons of different cultural backgrounds attempt to interpret the linguistic behaviors of others according to their own cultural and linguistic norms. Violation of the native speaker's expectations can result in negative evaluation of the speech partner's intent" (p. 241). Tsang explains that both the linguistic structure of Chinese and the conventions of the language may add support to the stereotype that Asian Americans are humble, reticent, and lacking in leadership skills. As a result, a manner of speaking considered by young Chinese to be appropriate and effective, carries over when they speak English, making them appear to Americans as very indirect in their speech.

Another area of difficulty for Asian-Americans is in job interviews, where the cultural expectation of the American interviewer is that the candidate will impress the interviewer with his/her skills, interests, and positive qualifications for the job. According to Tsang (1989):

> To successfully negotiate a job interview and to interpret correctly the subtle intent of the questions posed, a candidate must have a clear understanding of the value system of the interviewer. In addition, he or she must be able to convey responses in a culturally appropriate style, with the proper nonverbal cues. The interviewer evaluates the candidate's abilities through these culturally determined conventions of use. Since the ability to negotiate such linguistic conventions may or may not be relevant to the abilities required on the job, the candidate who scores highest in the interview may not be the person with the best job qualifications (p. 245).

Lucas (1985) states that survival and success in job interviews depends on intensive training in American cultural behaviors such as directness and informality of speech, clear confident responses to questions, going to the job interview alone, and using direct eye contact in communicating with the interviewer. She points out that people of both Asian and Haitian cultures often avoid eye contact and bow their heads to signify respect.

Personal Management

Certain skills in the personal management area -- developing the attitudes and behaviors required to get, keep, and progress on a job -- might pose particular problems for workers from many other cultures (see Table 1). Among them are to:

- o demonstrate personal values and ethics in the workplace (e.g., honesty, fairness, and respect for others);
- o identify and suggest new ideas for getting a job done; and
- o to be a leader or a follower depending upon what is necessary to get a job done.

Appropriate ways of demonstrating personal values and ethics, such as honesty, fairness, and respect for others vary from culture to culture. In the American workplace aggressiveness may be seen as a positive quality indicative of confidence and competence; however, it may represent a negative trait to persons from many other cultures (Lucas, 1985). Traditionally, even mainstream American workers have not been encouraged to develop skills and attitudes that foster their ability to identify and suggest new

ideas for getting a job done or to be a leader or a follower depending upon what is necessary to get a job done (see Table 1). The notion of listening to the views and ideas of workers or developing teams made up of workers and supervisors is a new one and requires new ways of thinking and behaving for employees on all levels of an organization.

For LEP employees, problems arise not necessarily from a lack of personal management skills on the part of the LEP employee, but rather from a culturally-based difference in perspective concerning appropriate behavior on the job. The hierarchical view of interpersonal relationships (Stewart, 1972) in many cultures makes it difficult for employees from those cultures to suggest new ideas openly to superiors or to be leaders or followers depending upon what is necessary to get the job done (see Table 1). From their cultural perspective, it would be insulting to their superiors for them to take leadership roles when their job is a subordinate one.

Cichon, Gozdziak and Grover (1986) found that in addition to such difficulties with relationships between supervisors and subordinates, workers from many countries had difficulty adjusting to the pace of work in America. Lucas (1985) points out that "few immigrants are aware that American life is fragmented into segments of time and that even a lapse of seconds can be crucial" (p. 14). This impacts not only on punctuality, but on working style as well. American employers value having workers kept busy every moment, taking breaks at specified times, in contrast to seeing the job as a series of tasks to be completed effectively with breaks

influenced by the flow of work or the fatigue of the worker. Cichon, Gozdziak and Grover (1986) also discuss the adjustment needs of workers from socialist countries to the demands for high productivity and quality found in American work settings. In socialist countries much time is spent giving the appearance of working, with low work performance considered a legitimate means of sabotage by workers in those countries. Other American values discussed by Lucas (1985) are the value of following directions precisely, maintaining surface relationships in the form of small talk, and the importance of personal hygiene.

Reed, in the training handbook Cross-Cultural Communication in the Workplace (1984), provides a number of incidents that illustrate misunderstandings arising in connection with the culturally-based norms governing interactions on the job. Incidents are presented both from the point of view of the LEP worker and of the American supervisor. In some cultures being critical or negative, especially in a direct manner and to a superior, is considered rude or inappropriate behavior. For this reason, identifying problems with the way a job is being done and suggesting other ways to do it would not be seen as appropriate behavior by workers from those cultures.

Teamwork

Teamwork skills identified by the Employability Skills Task Force require new ways of thinking and acting for both traditional American workers and LEP employees (see Table 1). All of the competencies listed under teamwork skills present challenges for

workers, particularly in multicultural settings for reasons discussed earlier. Training in group process, appropriate to mainstream Americans, is likely to be confusing to LEP employees unless the cross-cultural issues involved are addressed. Communication, sensitivity, identifying group norms and being loyal to a group, working in teams, and showing sensitivity to the needs of women and ethnic and racial minorities all present enormous challenges in the changing American workforce, particularly in multicultural settings. Both American supervisors and LEP workers need to gain an understanding of one another's cultural perspectives concerning appropriate roles and behaviors in different work situations.

Overcoming Barriers: Cross-Cultural Communication Resources for Training and Support Services

A number of areas in which awareness training and support services are needed in overcoming the problems resulting from cross-cultural issues in the workplace have been identified. There are two audiences for such training in the workplace: the LEP employees themselves, and their supervisors and co-workers.

Training for Supervisors and Co-workers

Reed (1984) points out that it would be ideal to provide cross-cultural training for all employees. She suggests that training be provided at least for department heads, line managers, and supervisors with the goal of achieving:

- o improved communication and relations among employees as well as between employees and management;
- o stronger teamwork and more active participation in company activities by all employees; and
- o increased productivity.

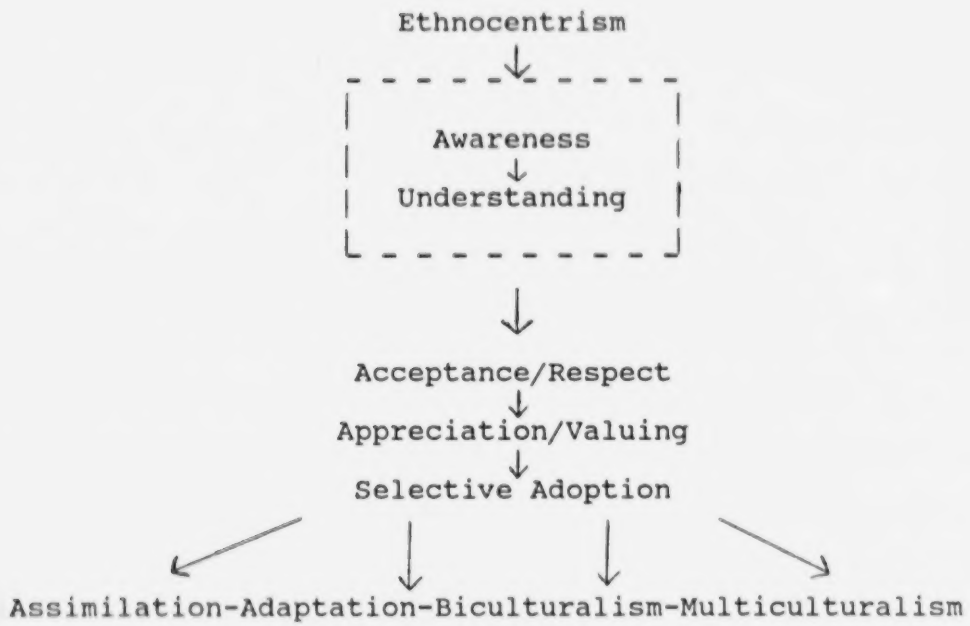
Such training provides employees and supervisors in intercultural work settings with insights into their own cultures and into the culturally-based patterns of behavior developed unconsciously from previous experience. The goal is to help participants move beyond ethnocentrism (refusing to examine their own cultural attitudes and judging behavior as right or wrong depending on whether it is like their own or different) to an awareness that there are other ways of thinking and being which are valid although different from their own.

Table 2 depicts Hoopes' stages of intercultural learning (Hemphill & Low, 1984, p. 40). The box shows the level being targeted in most workplace cross-cultural training workshops. This level of awareness provides participants with tools to continue to develop along the continuum and to begin to recognize and cope with cross-cultural misunderstandings and conflicts.

TABLE 2

DEVELOPMENTAL STAGES OF

INTERCULTURAL LEARNING*



*California Cultural Awareness Resource Guide (Hemphill & Low, 1984, p. 40).

Many excellent resources for such training exist. Cross-Cultural Communication in the Workplace: A Training Handbook, Reed (1984), was designed to train trainers to promote workshops in cross-cultural understanding in the worksite. It provides information about how to prepare for training sessions, including conducting needs assessments of the worksite to identify specific needs, such as countries workers are from, problems management is experiencing, difficulties LEP workers are having, and the communicative competence of workers. The handbook goes on to provide plans for conducting and evaluating the training activities.

The California Cultural Awareness Resource Guide for Adult Educators and Job Trainers, developed by Hemphill and Low (1984), provides cross-cultural communication training strategies that can be applied to both educational and employment contexts to enhance the quality of communication between individuals of different cultural backgrounds. It contains two types of training materials: those for introductory workshops and those for cross-cultural trainers. Both sections provide strategies, concepts and methods that can be modified for use in a variety of contexts, and a reference section listing print, media, and people resources for those wishing to go into greater depth or to develop their own materials.

Both the handbook and the resource guide cited above include experiential exercises, simulations, and cases that help participants go beyond the cognitive into the affective domain.

Effective training in cross-cultural communication must do this, since, as Levine points out in the introduction to the guide (Hemphill & Low, 1984), "The hidden areas of culture, those that are out of people's immediate awareness, are most heavily laden with emotion. Generally, people are more attached to the areas that are out of reach" (p. 1). She refers to an analogy of culture as an iceberg, with the hidden areas underlying our behaviors -- perceptions, assumptions, communication styles, values and beliefs -- as the portion of the iceberg not seen. For real cross-cultural learning to take place one must have experiences that address these hidden dimensions (see Table 2) that result in discomfort and conflict in intercultural situations.

A number of other resources have been developed recently that provide experiences for cross-cultural learning. Fantini (1984) developed Cross-Cultural Orientation: A Guide for Leaders and Educators primarily for those working with foreign students in this country. It contains some useful background information for trainers concerning experiential education, planning and facilitating group sessions, and working with groups, and has an accompanying student handbook. An earlier publication, Beyond Experience: The Experimental Approach to Cross-Cultural Education by Batchelder and Warner (1977), includes exercises and assessment techniques for the use of cross-cultural trainers. Yet another useful source of experiential exercises, A Manual of Structured Experiences for Cross-Cultural Learning, was developed by Weeks, Pedersen and Breslin (1987). It contains 59 exercises grouped

according to purpose, participant introduction and initial group experience, dynamics of communication, clarification of values, recognition of feelings and attitudes, identification of roles and so on. The authors (1987) state:

> In the structured experiences presented in this volume, emphasis is on the values, feelings and attitudes, as well as on substantive knowledge, in regard to cross-cultural learning. Practical information is obviously necessary... However, unless persons recognize their own culture-based values, feelings and attitudes, are able to communicate them to others, and experientially learn the logic of other cultural systems, practical information about another culture will be of little use (p. 3).

Cross-Cultural Training for LEP Employees

Training is also needed for LEP employees in the culture of the American workplace (Lucas, 1985; Cichon, Gozdziak & Grover, 1986). Such services are being provided throughout the country in ESL programs, bilingual vocational training (BVT) programs, and vocational counseling programs. They are designed to assist LEP individuals in understanding the English language, the American educational system, and the world of work. They address the issues raised in the previous section: helping LEP workers to learn culturally appropriate job seeking skills, such as how to fill out applications and perform in job interviews, the importance of punctuality, roles of supervisor and subordinates, and appropriate interactions with co-workers. In addition, they provide instruction in English and the specific vocabulary of the worksite or vocational trade.

In many vocational ESL or BVT programs, teachers spend time

observing the workplace and interviewing English-speaking co-workers to gain information about their expectations in terms of social interactions, habits, personal hygiene, teamwork, and job-related vocabulary. The purpose of these visits is to identify the real language and culture of the workplace for the purpose of developing relevant curriculum and lesson plans (Center for Applied Linguistics, 1982).

A monograph, Adapt Instruction for Limited-English Proficient Vocational Students, by Friedenberg, Kulick, Gordon and Tillman (1988), provides useful information on cultural influences on learning, discussing the tension between LEP students' own cultural expectations and their attempts to adjust to the expectations of the culture of their new country. They point out that teachers can help by being aware that "a period of adjustment to a new culture exists and by accommodating students' needs for culturally sensitive explanations about things that American students take for granted" (p. 15). The monograph provides specific information about differences in classroom behavior, nonverbal behavior, and instructional techniques that instructors of LEP students or workers should take into account. Damen (December, 1988) discusses the teacher's role in cultural learning and provides practical suggestions for teachers in developing intercultural communication skills and cross-cultural awareness among LEP students.

Hemphill, Pfaffenberger and Hockman (1989) developed a two-book set, The Working Culture: Cross-Cultural Communication for New Americans, with instructor's guides that provides exercises to

help LEP students identify their own cultural expectations and those of the Americans around them. The emphasis is on cross-cultural comparison to develop in students the capacity for handling cultural transition through reflection on both cultures. Lessons are designed to encourage students to create their own responses to vocational and interpersonal issues as they are found in the U.S. as compared to other countries. The instructor's manual contains useful cultural notes as well as teaching suggestions to accompany each lesson.

Wallerstein (1983) developed a useful ESL series, Language and Culture in Conflict: Problem Posing in the ESL Classroom, providing a problem-posing approach to teaching cultural awareness in the classroom or workplace. It encourages student discussion of real life problems leading to solutions developed by the students themselves.

Thiederman (1988) examines cultural barriers to successful training of foreign workers and provides strategies for overcoming them. She first talks about differences in cues for knowing when a participant has understood something, warning that foreign workers may be concerned about sparing themselves embarrassment as well as preserving the dignity of the trainer. This may make it difficult for them to reveal that they have not understood information being imparted. Thiederman provides guidelines for assessing worker understanding, warning trainers to beware of too much nodding and smiling, too many positive statements, an absence of questions and rote repetition. She also gives tips for

facilitating understanding: "speak slowly and distinctly, use tone of voice appropriately, use nonverbal skills, avoid slang, jargon and acronyms, repeat information several ways, and ask about comprehension frequently" (p. 82). She discusses cultural roots for trainee non-participation in class discussions. She concludes:

> One frequent misconception...is that there is no room for compromise -- either the foreign-born worker must immediately adopt the attitudes and behaviors of mainstream America, or native-born Americans must learn to adjust to dozens of diverse cultural styles. Trainers must take the middle road, the road that relieves the anxiety of the foreign-born worker and renders the process...both easier and more rewarding (p. 84).

Bilingual and/or culturally sensitive counselors use planned strategies and activities to inform LEP students and workers about American values, expectations of employers, and the culture of the American workplace. Some of these are outlined by Lucas (Lopez-Valadez, 1985), including: role playing, dressing for job interviews, tours of vocational training centers and industrial sites, exercises, slides and videotapes showing appropriate and inappropriate behaviors in different situations followed by discussion and critique, and discussing or role playing problem situations on the job, followed by an analysis of the cultural expectations that led to the miscommunications.

The "buddy system" is a time-honored strategy for orienting and training new workers. It is showing new promise for LEP workers teamed with experienced workers from their own cultures to acquaint them with the expectations and culture of the worksite as well as to assist them in learning the job itself. Peer language

coaches are being used in some worksites. The BCEL Newsletter (Job-Related Basic Skills, June, 1987) describes the Massachusetts Workplace Education Initiative's use of peer language coaches, recruited from the union membership at the New Bedford program. The article states, "While their stated purpose is to offer limited-English learners an opportunity to practice at lunch and on the job, the coaches actually speed up the process of learning English and help promote increases in self-esteem and program retention" (p. 5). This is only one example of a number of instances in which labor unions are becoming involved in providing support to LEP workers.

Both the literature and practical experience demonstrate that a thorough understanding of the way cultural values affect language, education and the world of work is essential for those concerned about developing the capacities of LEP employees to perform effectively on the job. Both LEP employees and their co-workers and supervisors can benefit from cross-cultural awareness training, enhancing their abilities to work together more productively.

Summary

The field of cross-cultural communications developed initially from the needs of international businessmen and development workers. Now, researchers agree that the need is greater than ever for recent immigrants and refugees to get and keep jobs, and to advance on the job.

The Employability Skills Task Force identified a number of academic, personal management, and teamwork skills needed in the workplace. For LEP employees, as well as their American co-workers, cross-cultural awareness is important for a number of these skill areas. The academic skills of correct speech patterns, grammar competency and written expression are needed for LEP adults to get and keep jobs. Personal management skills of demonstrating values and ethics in the workplace, identifying and suggesting ideas to increase productivity, and being a leader or a follower to get the job done are needed to advance on the job. Teamwork skills of group process and of understanding other's perspectives of roles and behaviors in different work situations are needed for effective and smooth interaction.

To help develop these skills, training programs are needed both for the supervisors and co-workers and for the LEP employees. The goals of training for supervisors and co-workers include improved communication and relations among employees and between the employees and management, expanded teamwork and participation in the companies' activities, and increased productivity. The American supervisors and employees need to move from ethnocentrism to an awareness of other ways of thinking and behaving as also being valid. Training for the LEP employees needs to address American values, the culture of the American workplace, the expectations of employers, and the cultural expectations of the LEP employees. Barriers to successful training need to be understood to be overcome and to increase cross-cultural understanding.

Areas of further investigation include the study of cross-cultural dynamics involved in the team approach to identifying problems on the job and to getting the job done. Study is needed of the cross-cultural issues in workplace leadership development, particularly relating to taking initiative. The cross-cultural aspects of women in the workplace, and women as supervisors also warrants investigation.

PART 4. TRAINING PROGRAM MODELS FOR LEP ADULTS

Given the job skill, English language, and cross-cultural training needs in the workplace, the next issue is that of the most effective models and approaches for conducting that training. The authors initially set out to focus on successful workplace training models for LEP adults. The literature available, however, contained very little convincing evidence of models' success, and generally did not distinguish programs in workplace settings from those in educational institutions. This problem is noted by others as an inherent one in the literature. Distinguishing between employer-provided and non-employer-provided programs uncovers definitional issues. For instance, does one distinguish program types by who pays for the training? An employer may pay a traditional educational institution to provide it. Also, many non-employer training providers are private entities such as proprietary schools, unions, or trade organizations (Mangum, 1989). Further, that literature which does address training programs in workplace settings does not analyze LEP participation separately from that of all other trainees.

From the positive viewpoint, the informative literature related to the topic is as follows. First, there is a host of material concerning training for LEP adults in work preparation, some of which is based on experiences in both the schooling and workplace settings, though usually not distinguished as such in the analysis. Second, there is some information on workplace

training models, though not for LEP adults in particular, even though they may be among the trainees in those programs. Third, there is considerable anecdotal evidence of strategies and practices found to be successful. Among this evidence are a number of generalizations about successful practices derived from relatively systematic inquiry and evaluation. But because of the types of measures and study designs, those generalizations must be considered more suggestive than conclusive.

Based on the available literature, therefore, the focus of the question in this part of the paper is: What is known about training LEP adults in job skills and related English skills that we can infer would contribute to effective LEP adult training in the workplace? The answers presented are at the level of generic models or approaches. A more detailed level, that of specific practices, principles or strategies, is well-represented in a large number of literature items. Presenting those details, however, would be more akin to cataloguing a very long list of entries, and is therefore precluded from this review.

General Workplace Training Models

Hardly a mention of workplace training programs for adults is available which does not highlight two key components: systematic instructional programming and job-specific context. These are most clearly and authoritatively articulated by Carnevale, Gainer, and Meltzer in Workplace Basics: The Skills Employers Want (1988) and Belcher and Warmbrod in Literacy Enhancement for Adults (1987).

Carnevale, et. al., consider training models intended to provide employees with basic workplace skills in both literacy and job-specific functions. Their analysis of prior information on training programs leads them to conclude that such programs are most successful when:

- o they are preceded by a well-constructed action plan that includes an in-house marketing campaign to marshall management and union support, and that connects the workplace basics program to the employer's competitive strategies;
- o they use a systematic approach to training design, development, and delivery;
- o they incorporate an applied learning method that uses a functional context approach to job-specific training (p. 17).

These principles are parallel to the Instructional Systems Development (ISD) model promoted by Belcher and Warmbrod as derived from military R & D. An overview of ISD's five major procedures includes:

1. Analysis - determine that a training need exists, and identify what the training content should be;
2. Design - determine goals, levels, content and structural parameters of the instructional program;
3. Development - specify the actual learning activities and organize the activities (including tests) into an overall systematic program of basic skills training;
4. Implementation - operate the program;
5. Evaluation - determine the value of the program by examining trainee outcomes (pp. 31-32).

Furthermore, the ISD procedures applied to workplace settings are predicated on a functional context to ensure that the "basic skills tasks to be taught are actually representative of the job" (p. 31) in which the trainees work. Finally, Belcher and Warmbrod also stress, as do Carnevale et. al., that one of the basic principles underlying all occupationally-related basic skills training programs, is that they support the "orientation to the mission of the organization for which the...programs are being developed" (p. 29).

A set of eight steps in the "applied approach" is outlined by Carnevale et. al., a set which also covers the ISD procedures above. These eight elaborate what might be taken as the most important principles for adult workplace training, one which ensures the desired functional context, and takes them one stage further into terms of a workable model. The steps are as follows:

I. Identify job changes or problems related to workplace skills.

II. Build management and union support for skills training programs in workplace basics.

III. Present the strategy and action plan to management and unions for approval.

IV. Perform a task analysis of each selected job or family.

V. Design the curriculum.

VI. Develop the curriculum.

VII. Implement the program.

VIII. Evaluate and monitor the training program (pp. 18-19).

Several of the features advocated by the authors above are supported by the few relevant evaluation studies found in the area. The primacy of a systems approach to training is underscored by Hoachlander and Stoddard (1987) in their study of effective training programs in the San Francisco Bay area, some of which were business/industry based. Among their findings was, "first and foremost, a 'systems approach' to training" (p. i), characterized most generally by a program having discrete steps, organized as part of a whole, with systematic feedback and ongoing modification.

The importance of a functional context for training is highlighted by Sticht and Mikulecky (1984) in their analysis of job-related basic skills program case studies. They conclude that "integration of basic skills training with technical training produces the best results" (p. ix) for basic skills improvement. More particularly, training which employed job simulations and applications of the literacy training significantly increased the trainees' time on task in the learning setting, which in turn was associated with increased literacy skills.

Finally, the Carnevale et. al. first principle stated above concerning cooperative management and union support is reinforced by others in their evaluations. Fields, Hull, and Sechler (1987), analyzing industry-based literacy training programs, found that literacy programs were often collaborative efforts between the company (management) and union. In those cases, where there was initial union resistance, it gave way to program support when the benefits in improved worker performance became apparent.

On-the-Job Training Programs for LEP Adults

As a subset of general workplace training models, on-the-job training receives considerable attention both in practice and in the literature. On-the-job training (OJT), as the name implies, is job training provided by the employer for which the trainee is paid. It is an informal arrangement whereby workers considered to have the requisite skills for the job are taught to do the job by a co-worker, supervisor, or trainer. Apprenticeships and internships tend to be of longer duration and more formalized than OJT. The latter is preferred by many employers to pre-employment training because they believe they can provide better job-specific training as well as orientation to the unique features of the worksite and to establish procedures.

OJT (along with "mentoring") is also the preferred method of upgrade training for many jobs. A study of personnel practices in Georgia manufacturing companies (Grider and Bedeian, 1975) found OJT to be the dominant method used for skills improvement training, and a study of the impact of the Refugee Targeted Assistance Program on refugee economic histories (Cichon and Semons, 1986) shows how extensive OJT in precision machine tool operation resulted in promotions for a number of refugee employees hired as entry level workers.

OJT not only results in job upgrades, it also has been reported to increase worker productivity. Bishop (1987), in a survey of over 3800 employers nationwide, found that one hundred additional hours of on-the-job training increased productivity by

10 to 20 percent, whereas the impact on observed wages was two to six percent. That availability of OJT to limited-English proficient workers, women, older employees and workers with low basic skills has been limited, can be inferred from Mincer (1979), who reports that employers traditionally provide such training to young men with strong general educational backgrounds whom they considered would be likely to remain in the company if given the skills to facilitate their promotion.

This section briefly examines the characteristics of successful OJT programs and then discusses the special needs of LEP employees during the training.

Characteristics of Successful OJT Programs

The low level of basic skills of students coming out of the public schools and of those currently in the workplace have resulted in a reassessment of the methods used and the skills taught in the schools. Often graduates do not develop the kinds of skills in reading, writing and problem solving that are needed in the world of work. As early as 1972, Becker compared the effectiveness of OJT to school learning. He indicated that OJT is often not a great deal better than school learning because both depend heavily on the quality of instruction and on having effective modeling of work-related behaviors. He posits that the most effective learning environment is one in which the attitudes and sensibilities desired for the trainee are embodied in the daily activities of the people with whom the trainee associates. Another

criticism of school-based learning and OJT leveled by Becker (1972) is that both rarely help students discover areas of weakness and advise them on how to strengthen their skills in those areas. Nevertheless, he found that even though both school-based learning and OJT had certain weaknesses in common, OJT is more likely to result in educational success than is academic learning.

It appears that the quality of the trainer and the attitudes and standards he/she portrays are important elements of successful OJT, as is the trainer's ability to provide the trainee with feedback concerning areas of weakness as well as with guidance for correcting or overcoming those weaknesses. In the case of LEP employees, attention paid by trainers to teaching not only job procedures but the culture and standards of the workplace is especially important.

Studies conducted at Northeastern University (Geer, 1972) identified a number of essential factors to the success of on-the-job training programs. These included:

1. control of training;
2. substantive fit of training and work;
3. articulation of training with employment;
4. fit of vocational classes to OJT;
5. frequency of testing and evaluation;
6. openness of learning situation;
7. opportunity for self-evaluation.

The studies found that OJT was most meaningful as part of a vocational training program geared to developing the skills needed

on the job. Thus, close coordination between the vocational instructor and the job trainer were essential. In addition, frequent evaluative feedback from the instructor and trainer was important. Programs were more successful when trainees were encouraged to set their own training goals and given an opportunity for self-evaluation in relation to those goals.

During the Phase III evaluations of the Refugee Targeted Assistance Programs (TAP), Gimbert and Semons (1987) found that vocational training appropriate to the job was more successful than were direct placement programs in helping previously employed refugees upgrade their positions. Their findings bear out Geer's (1972) contention that the fit of vocational classes to OJT is vital.

Necessary Resources for Training LEP Workers on the Job

Gimbert and Semons in Impact of Targeted Assistance on Refugee Economic Histories (1987) described a number of OJT strategies used by programs for LEP adults whose language skills and previous work experience make them difficult to place in jobs in the United States. These involve providing the employer with additional support during a worker's initial training. In the case where extensive OJT is not needed, this consists of having job developers or counselors accompany the LEP client during the first few days on the job to make sure he or she understands workplace procedures and the directions of supervisors. In the case of jobs where some training is needed, the job counselors learn the jobs themselves

and then train the new LEP worker at the worksite for the next few days. Where extensive OJT is needed, as in the case of Vietnamese workers placed through a TAP OJT program in a worksite where dentures were made, the program initially provided bilingual support to the employer during training. Later, it arranged to team LEP workers with other Vietnamese employees who were more proficient in English and had more job skills and greater experience with American workplace norms. This same approach was used in TAP programs in other parts of the country, and it was reported that such a team approach eased the burden for the employer of providing OJT in the face of cultural and linguistic barriers.

From the foregoing studies it would appear that bilingual support and assistance from a worker more knowledgeable about the culture of the American workplace would be important resources for LEP employees. Other resources often provided are assistance with transportation or with solving family problems which might interfere with a LEP employee's ability to get to work and training regularly.

Prince and Gage in Your First Job, Putting Your English to Work (1986), provide examples of lessons and materials that can be used to prepare LEP adults with basic English skills useful for on the job training and include examples of work orders, parts' requests, exercises in working with codes, filling out and reading time cards and so on. Employers interviewed during the TAP evaluation (Gimbert & Semons, 1987) also reported that workers

needed further preparation in the following areas to be prepared to be more effective on the job and to gain more benefits from OJT:

1. job-specific vocabulary;
2. understanding of and responding to directions;
3. safety regulations; and
4. communicating with co-workers.

Although there is little information about the participation of LEP workers in OJT programs, it appears that with some support and vocational training such programs are likely to be beneficial, not only initially but also in enabling LEP workers to advance on the job.

LEP Training Models

Rather than using general workplace training as the starting point for examining literature, other types of training models appear when LEP adults are the focus. While there is much guidance to be derived from research and theory about training of LEP adults in literacy, language acquisition, academic, cultural and urban survival skills, a number of practitioners and scholars have already applied the most pertinent of those sources to developing models and principles for the employment context. Thus, this section draws directly from these latter sources.

A small, and somewhat overlapping, set of models addressing training programs with employment-related goals for LEP adults are recurrent in the literature and in practice. Kremer in Approaches to Employment Related Training for Adults Who Are Limited-English

Proficient (1985) classifies these distinct approaches: a) the ESL program, in which general English language skills are taught, on the assumption that LEP adults need to learn English before they can work or benefit from job skill training; b) the vocational program, wherein vocational and ESL are taught concurrently and coordinated; c) the work experience approach, in which some supported or unsupported work in a highly supervised setting, usually on a trial basis, is conducted by the trainee along with a coordinated ESL program; and d) the workplace approach, essentially supplementary English training for employees in and related to their place of work (pp. 13-14).

While Kremer's scheme sought to address the broadest diversity of skills training LEP adults might need, others attempt to focus more specifically on either English language or vocational skills training, recognizing that either is most effectively learned in the context of the other. Crandall, in Practical and Theoretical Concerns in Adult Vocational ESL: The Characteristics of Successful Vocational ESL Programs (1979), for instance, presents approaches to LEP vocational training on somewhat of a continuum from furthest removed from to closest to the job. Her models include:

- prevocational/pre-employment ESL leading to employment;
- VESL and vocational training;
- bilingual vocational training; and
- ESL and on-the-job training (p. 10).

She also notes that since these four models were formulated and popularized in the late 1970s and early 1980s, the more work-related models, as outlined by Kremer above, have appeared more often in practice and in the literature.

Friedenberg (1985), in delineating models for teaching English to immigrants, shows that the applications to work constitute the preferred orientation. Her models include: a) general ESL; b) English for Special Purposes (ESP) (in which English is taught as needed to function in specific situations, such as engineering, medicine, business, etc.); c) prevocational ESL (as needed to prepare resumes, conduct job search, become familiar with essential terms and procedures of the American workplace, etc.); and d) VESL (English skills needed to succeed in a specific job or specific job training program) (pp. 2-3).

Belcher and Warmbrod (1988) also utilize the same models in their presentation when they address LEP applications of adult literacy education.

Bilingual Vocational Training

In the opinions of some of the foremost experts in the fields of vocational skills training for LEP adults, Bilingual Vocational Training (BVT) is the most effective and desirable model for learning job skills as well as English language skills. BVT is "a program of occupational education, training, or retraining wherein instruction is provided in two languages, one of which is English. And...(it) should include an ESL component taught by a trained ESL

instructor. The ESL component of the program is...job-related or vocational" (Friedenberg & Bradley, 1984, p. 2). BVT is provided for LEP individuals because of their inability to benefit from vocational training provided only in English. As the program and the trainees' English language proficiency progresses, there is increased use of English and decreased use of the native language in the instruction.

Variations within the model as so defined are somewhat manifold in practice, with a widely agreed upon core of three elements (Bradley, Killian & Friedenberg, 1989, p. 2; Belcher & Warmbrod, 1988, p. 45):

- o bilingual job skills instruction;
- o simultaneous ESL instruction; and
- o job-related ESL instruction (VESL).

Key to the three essential elements is that the job skills and ESL instruction be closely coordinated, through having the job skills and ESL instructors jointly develop the curriculum, team teach, and so forth.

Within the first element of the core, that of bilingual job skills instruction, there are a number of ways of providing the bilingual component, as articulated most concisely by Belcher and Warmbrod (1988). The conceptual ideal is that an instructor in, for example, sheet metal work, be proficient in both English and the language of his or her students (presumably of one language group), and switch from one language to the other as needed. Since this is rarely the case, however, adaptations from that ideal are

needed. These adaptations include the use of bilingual aides for each language group among the trainees, the use of peer tutors, a supplementary resource center to which trainees can go for special assistance, or appropriate bilingual instructional materials.

Outside the core elements of BVT, other components that are considered part of the model include:

1. Recruitment targeted to LEP adults in particular;
2. Intake and assessment procedures that are both appropriate and diagnostic rather than exclusionary;
3. Counseling and support services for the special needs of LEP adults;
4. Job development and placement geared toward the special needs of LEP adults;
5. Coordination of all of the foregoing elements with the core ones (Bradley, Killian & Friedenberg, 1989, pp. 2-3).

These non-core components seem to apply primarily to educational institution based, preemployment programs, and not necessarily to programs for individuals already employed within a company's program. In the latter case, some adaptation or even elimination of elements may be appropriate. For instance, for employees participating in a company's training program, recruitment should not be a problem if the training is mandated, but recruitment should be given attention if the training is voluntary. It is important that supervisors support a training program and comply with company arrangements for release time. Intake and assessment procedures <u>may</u> have to be selection-oriented, and thus at least somewhat exclusionary if that supports the particular company's

purpose at the time -- i.e., they may want to train only some select few who meet certain standards for advancement in a specialized area. Counseling and support services (such as transportation and childcare for training participants during non-working hours) could be useful to supplement the employees' direct training, but presumably are not needed as much as they would be for unemployed LEP adults in a preemployment preparation program. And finally, job development and placement would not be a needed service for current employees, except possibly when a company provides retraining in preparation for job search for those laid off as part of phasing out a company division or location.

Early demonstrations of the effectiveness of bilingual vocational education are summarized by Galvan (1981) in her conclusion that LEP students learn both English and their vocational skills faster with this approach and can complete vocational training in about the same amount of time as their English-speaking peers. Using a different criterion, Gunderson (1983), in her comments concerning one group of trainees, concludes that "experience with BVE [Bilingual Vocational Education] demonstrates that, on average, people trained in BVE programs have paid in taxes, in three years or less, the total cost of their training" (p. 3).

Focusing on the VESL component of BVT, "VESL instruction has been shown to be the most effective approach to teaching English to adult immigrants" (Friedenberg, 1985, p. 4). Since students are receiving English language instruction that is relevant to

their immediate needs, they are more motivated, drop out less, and do not waste time learning English that will not help them with their immediate employment goals. Rae's (1986) evaluation of what she described as an experimental VESL course (which in fact well-matches the BVT model) lists among her conclusions that teaching language coincidental with a job skill made the whole process less laborious for students, because the language learning could often take place unobtrusively when the focus was on a job skill. As a result, "the students retained high motivation throughout, since they were learning something new...(And they could) more readily appreciate the need for good linguistic knowledge than when, for example, they are thrown into a purely language-based foundation course as a necessary prelude to studying a subject" (pp. 210-211).

Summary

Although demonstrated research evidence is scant, some of the foremost program advocates and researchers in the fields of employment training, adult literacy training, and LEP training have highlighted the following features of effective industry-based programs for LEP adults. Such programs are systematic, well-organized, and feedback-oriented, from specification of workplace-based objectives and trainee needs, through curriculum development and implementation, and through evaluation and modification stages. They instruct in language skills through job-specific applications. They involve close coordination of the ESL and job skill training. They also involve management and unions working collaboratively

from the planning through the evaluation stages of the programs. As of this writing, however, there are a number of sources which are scheduled for imminent publication and which promise to address job training models' effects and to include a separate LEP focus. Also, the fact that most of the literature does not distinguish between workplace and educational settings needs to be addressed. Finally, an analysis of LEP participation is needed for each of the types of workplace training programs. Perhaps these forth-coming sources will fill in some of the gaps identified in the foregoing body of literature and provide more definitive answers to issues of LEP workplace training.

PART 5. PUBLIC/PRIVATE PARTNERSHIPS

The concept and practice of public/private partnerships has been changing over the last several decades to encourage a more fundamental involvement between the public and private sectors and shared responsibility for joint efforts. Though these evolving partnerships may increasingly be including LEP students and adults, there is little in the literature specifically addressing their participation, needs and benefits.

Development and Definition of Partnerships

Traditionally, partnerships have meant a business or businesses helping a school or school district, as is the case in the Adopt-a-School model. The private sector participation usually consists of donating, volunteering and/or advising. The company may donate money for student awards, scholarships or programs, equipment or materials to supplement the curriculum or upgrade facilities, and expertise and facilities for student visits, tours, internships and summer jobs and for teacher and staff training. Corporate volunteers may tutor students in their lunch hours, serve as guest lecturers, assist with class or school administrative tasks, help with fund raising, and act as mentors for students interested in particular career areas (O'Connell, 1985; N.Y. State Education Dept., 1987). Advisory contributions may include businessmen serving on curriculum committees or as consultants for subject areas, participating in task forces to fund raise,

developing special programs, or promoting further school-business activities (O'Connell, 1985).

These types of activities are certainly beneficial to the schools and have gotten businesses more involved with education and the community. However, they represent essentially one-way relationships of businesses helping to meet schools' needs.

With vocational education there has been a more definite impetus for business involvement -- the need for skilled labor. Employers have served on advisory councils and on job and craft committees. They have made donations and have volunteered their time and expertise. They may even participate in a work-study or cooperative education program. As with the schools, their contributions have been needed and useful but uneven and limited to individual projects (Hemmings, 1984), sites and time frames, "...rather than systematized and integrated...Employers have not shared responsibility for the products of our educational institutions. This has created an `us/them' situation where the business community can stand back and point to failure while taking minimal responsibility" (Hemmings, 1984, p.7).

During this past decade, more permanent and ongoing relationships have been developing between the private sector and vocational education relating to employment and job training needs. The mandates of the Job Training Partnership Act (JTPA) and the Carl D. Perkins Vocational Education Act (VEA) call for coordinated planning and programming between the State Job Training Coordinating Councils and the Private Industry Councils (PICs),

established and supported by JTPA, and the State Boards of Education, Departments of Education, community colleges and vocational schools, in part supported by VEA (Rezabek & Saul, 1986). Members of both the business and education communities (and of Community Based Organizations [CBOs]) are on the State Job Training Coordinating Councils and on the local Private Industry Councils. The private sector contributes specific information on labor demands, training needs and additional funds. Together, the council members plan for the needed training programs. The training and job placement services are contracted out to local educational institutions, CBOs and private providers. Trained workers are then placed in local private companies, meeting the companies' particular labor needs as articulated earlier in the process (Butler, Kahn & Darr, 1985).

There are a number of examples of these ongoing public/ private partnerships. The Boston Compact, originating out of the local PIC, involves over 265 companies, with universities and unions, in various activities related to job training and placement, preparation for further education, and assistance in financing higher education in conjunction with Boston Public High Schools (McMullan, Synder, Rosenblum & Tyler, 1987). The Greater Cincinnati Industrial Training Corporation (GCITC), a nonprofit organization, administers an industrial machining and fabrication program at the Scarlet Oaks Career Development Campus in Ohio. The program was developed and is supported by the General Electric Aircraft Engine Business Groups, other businesses, local PICs, the

U.S. Department of Labor, the Ohio Job Training Partnership and several local vocational schools (Kaplin, 1986). Another partnership, in Milwaukee, involved SER-Jobs for Progress, a JTPA funded CBO, Automated Data Entry Company (ADE) and Milwaukee Area Technical College (MATC) to train skilled data entry operators for jobs with ADE. The program was well planned and developed but lacked the expensive IBM System 36 for the technical training. IBM was impressed by the fact that a local employer, CBO and school were working together to provide jobs for low-income people and contributed the computer system to the partnership. The MATC instructor was paid with funds from the Perkins VEA (Zaragoza & Huber, 1987).

These, and other partnerships like them, have gone beyond the initial relationship level of "communication" where schools seek information and advice from industry and the level of "cooperation" where businesses become involved in various school activities and contribute funds, time, and resources to the schools (Maurice, 1984). The level of "cooperation" still implies that the business community is helping educational institutions solve their problems (Hoyt, 1986). This newer type of partnership involves at least some degree of "collaboration." At this level "educational functions of both the schools and employers are considered, and a joint program is developed which links these functions in the school and workplace." (Lapin, 1983, p. 16; Maurice, 1984). According to Hoyt (1986), the concept of collaboration centers around shared authority, responsibility and accountability for the

planning, implementation and results of joint projects. Maurice (1984) goes on to describe a more involved level, "integration," where the structures of the cooperating organizations are modified to accomplish the objectives of the partnership's ventures.

In light of these trends, public/private partnerships are "collaborative efforts that bring together schools, businesses and other community organizations to address their mutual interest in the educational process" (Community Office of Education, 1985, p. 4). The partners share in the planning and implementing of programs, which address mutual needs (Hemmings, 1984) and yield benefits for all partners involved (Community Office of Education, 1985). They also contribute part of the resources needed to carry out the collaborative projects (Hemmings, 1984).

Barriers to and Success Factors and Benefits of Partnerships

There are a number of barriers to establishing these types of partnerships. The major barriers mentioned in the literature are:

1. Initial mistrust and misunderstanding (Packard, 1985).
2. Misconceptions, preconceived ideas and stereotypes that people from business and education have about each other (Community Office of Education, 1985).
3. Different organizational patterns of behavior, traditions (Rolzinski & Charner, 1987), and different jargon and inferred conflicting values (Butler et. al., 1985).
4. Sharing the authority, responsibility and accountability for the joint project (Hoyt, 1986; Rolzinski & Charner, 1987).
5. Personality conflicts and political pressures (Cadwallader, 1986).

6. Competition for scarce funds and preoccupation with one's own organization's economic survival (Butler et. al., 1985).

Maurice (1984) stressed some additional problems at the institutional level. The propensity for maintaining existing structures, the fragmentation and isolation of cooperative efforts and institutional flux all hamper the continuity and strengthening of partner relationships. He also stated that some private and public institutions had had negative experiences with government policies and, therefore, might hesitate to develop partnerships if some government agency or policy is involved. Finally, he said that educational institutions were not prepared to collaborate with industry because educators lacked the appropriate training to engage in joint activities.

Moser (1986) added barriers relating to the attitudes and experiences primarily of industry. Corporate members have perceived colleges as not being on the cutting edge of technology and emphasizing theoretical rather than practical applications. Some companies do not realize the direct relationship between productivity, quality and education or training. They also underrate the importance of teaching skills. Other companies may have had poor prior experiences when working with educators and have felt that educators lack flexibility in implementing updated and state-of-the-art content.

To assist partnerships in overcoming these barriers, key elements of partnerships or success factors have been enumerated in the literature. The most frequent of these are:

1. Common goals and clear objectives.
2. Ownership and commitment at the top and line staff levels.
3. Top-level position(s) for the projects' director(s); one key person responsible for the project in each organization.
4. Flexibility (institutional, programmatic, instructional, etc.).
5. Time and effort to confront assumptions and work on problems.
6. Communication.
7. Adequate funding and administrative support.
8. Mutual needs for and benefits from the partnership's activities.
9. Clear procedures for evaluating results.
10. Initial projects are small, "safe" and sure to succeed.
11. Active advisory committees comprised of top-level members from all groups involved.
12. Quality instructors with industrial experience if possible.
13. The private sector's participation in curriculum planning and evaluation activities.

In addition to these commonly mentioned success factors, there are several stressed by individual authors which are worth noting. Johnson (1984) mentioned that all parties involved should be offering resources. The initial venture should be launched with a small team of committed, experienced, action-oriented individuals (Mason, 1987). Management and labor need to participate in every aspect of the program (Royce, 1989). Also, program participants should be selected by the criteria of who is best suited to the

training or could most benefit from the training (Long, 1985).

All of the authors on this topic of public/private partnerships extol the benefits to both educational institutions and businesses. The benefits commonly stated are presented in Table 3.

The literature reflects the attitude that none of the barriers to effective partnerships are insurmountable; the number of successful joint ventures is growing and their keys to success are known; and that the benefits of collaboration abound and the time is right for a proliferation of public/private partnerships. Federal funds and programs have been cut and state government has emerged as a powerful political force (Hickey, 1986), while a dominant pro-private sector ideology is present in the national administration (Maurice, 1984). Rapid changes and advancements in technology and the ever expanding volume of information needed to keep up with them have moved our nation from an industrial to an informational society (Packard, 1985; Carrier, 1987). Workers have been displaced and new jobs require new and more advanced levels of skills. "Training, retraining and up-grading for work are needed on an ongoing basis,"...as well as "the type of education necessary to produce employees capable of making these changes" (Packard, 1985, p. 3). As baby boomers age they will need to change occupations and retrain several times (Carrier, 1987). Young people entering the labor force will be fewer in numbers and they will need higher basic skills, as well as more advanced

TABLE 3

The Benefits of Public/Private Partnerships

For Educational Institutions:

1. More funds and resources.
2. Closer ties to business and the community.
3. Access to industry's facilities, equipment and personnel.
4. Staff and curriculum development and technical updating.
5. Student exposure to technical skills, business practices, and the free enterprise system.
6. Student knowledge of jobs and careers and how to get them.
7. Hands-on practical experience, training and employment opportunities.
8. Improved academic skills and motivation for the students.
9. Improved morale for the students and staff.

For The Business Community:

1. Involvement with the schools and community.
2. Satisfaction for employees participating in collaborative ventures.
3. Improved public image.
4. Access to instructional expertise, current research and theory, and evaluation methods.
5. More literate and skilled future workers.
6. Cost effective training and retraining programs.
7. Reduced turnover.
8. Increased quality and productivity.
9. A better business climate in the community.
10. More competitive enterprises in the national and global marketplace.

technical skills (National Alliance of Business, 1987). Finally, increasing international competition has threatened our prosperity, making cost-effective resource pooling through partnerships necessary for America to regain her competitive edge in the world marketplace and in skilled labor (Mayfield, 1986).

As the information age shifts emphasis from dollar capital to human capital (Mayfield, 1986), public/private sector partnerships can help adult learners develop the knowledge and skills needed to keep up with their changing roles in the workplace. "Integrating education and work, then, becomes a powerful ongoing strategy for all organizations involved and for adult learners taking charge of their lives, careers and community development" (Rolzinski & Charner, 1987, p. 85).

Summary

In the past, public/private partnerships had meant businesses helping schools. Between vocational educational and businesses, a more cooperative arrangement developed because of the mutual interest in skilled labor. With the advent of the Job Training and Partnership Act and the Perkins Act, ongoing partnerships between businesses and educational institutions and/or CBOs have been evolving. These arrangements have moved beyond communication and cooperation, which primarily benefit the schools, to collaboration through addressing mutual needs and sharing implementation, resulting in benefits for all parties involved.

The literature has listed numerous barriers to establishing

effective partnerships, key elements of successful ones and the benefits to both private and public sector institutions. It has also stressed the need for more partnerships and that the time is right for their development. The literature does not, however, address the needs of LEP adults, or even present any information on them as a group. Also, most of the literature on partnerships was written by members of public sector institutions; little has been published from industry's point of view. Few studies have been done in relation to partnerships and the training of those who are already employed in private industry.

PART 6. ECONOMIC BENEFITS TO INDUSTRY OF COMPETENCE IN BASIC SKILLS AND OF TRAINING

Workers and employers have historically viewed competency in basic skills differently. Individuals have looked at competency as important to earnings and opportunities on the job. Employers in the past have seen it as a prerequisite for hiring and as the responsibility of the individual. With today's shrinking labor pools, the demand for labor will create job opportunities for those less skilled, who will be hired even though they have obvious skill deficiencies (Carnevale, Gaines & Meltzer, 1988). "American employers will provide training to fill in the skill gaps and help build individual competence in the basics" (Carnevale, Gaines & Meltzer, 1988, p. 6).

Costs of Worker Skills Gaps

A U.S. Departments of Labor, Education and Commerce study, Building a Quality Workforce (1988), predicts that American industry will have to spend as much as $25 billion each year on remedial education. The authors of the study go on to say that the growing "skills deficiencies in the American workforce are costing American business monetarily, through waste, lost productivity, increased remediation costs, reduced product quality, and ultimately a loss in competitiveness" (p. 18). They quote a New York Times article which states that a manufacturer in Florida estimates that it could save up to $1.2 million a year if its employees had stronger math and reading skills. The company

reported that because some employees have trouble measuring, its level of waste is higher than it should be. Further, worker difficulty in reading blueprints forces the plant to redo orders and pay overtime.

Carnevale, Gaines and Meltzer (1988) in the report cited above state:

> The company that develops and delivers a product to the marketplace in the least amount of time is able to pass on the savings of the shorter production cycle. This gives the company the edge in (1) offering a less expensive product, (2) capturing initial consumer interest in a product, (3) promoting consumer loyalty, and (4) establishing a niche in the marketplace that gives the product an advantage over similar products that are likely to follow (p. 1).

They go on to say that employers know that good basic skills can mean a shorter production cycle and improved products of higher quality.

The report also discusses the relationship of basic skills to American industry's ability to develop and implement technical change and the effects of strong basic skills on individual opportunity. This and numerous other reports make it clear that America's ability to compete in the world economy is dependent upon the strength of its worker competence.

Building a Quality Workforce, U.S. Department of Labor et. al. (1988) reports that Motorola, Inc. spends 60 percent of its employee training budget on remedial math and reading skills. The company states that employers like Motorola, "a multi-national manufacturer of electronics products, are `fighting for survival'

because of fierce international competition and a need for a workforce that is literate in basic areas such as reading, writing, and math" (p. 19). The costs to industry and our nation of the skills deficits of today's and tomorrow's workers is of major concern. While we found little information specific to LEP adults, their significance to the American workforce as discussed earlier would make findings about benefits to industry of a workforce strong in basic skills applicable to this special population as well.

Benefits of Training

Magnum (1989) indicates that literature on the productivity impacts of participation in training is scarce. From this and on the basis of this literature search, it can be inferred that most of the benefits to industry are documented through informed judgment and practical experience rather than quantitative studies such as cost/benefit analyses. A review of current research on human capital and the labor market by Mincer (1979) looked at benefits of training to industry and concluded that:

1. general education enhances worker productivity in terms of wages and turnover and in terms of participation and benefit from on-the-job training programs at work;

2. OJT programs were more beneficial when utilized by younger employees with good basic skills, who were likely to remain in the workforce;

3. and outcomes were better when the costs of such programs were shared between employers and employees. Benefits of programs included less worker turnover, fewer layoffs, and more rapid increase in worker wages.

From this it appears that there are observable indicators of economic benefits to industry, including reduced turnover, higher productivity, and increased worker satisfaction. These can be examined as beneficial outcomes of training programs.

Rinella and Kopecky in A Proven Approach to Reducing Employee Turnover (1988) state that the cost of employee turnover in the United States is more than $11 billion annually. They say that in the restaurant business, for example, turnover costs the employer $1,500 per worker and that the turnover of hourly employees is between 250 percent and 300 percent per year. Their study looked at the effects of a Burger King franchise's efforts to reduce its recruiting and training time through an educational incentive program. An exploratory study at one site showed that the turnover rate for employees taking advantage of the program was 38.7 percent as compared to 160 percent for eligible employees who did not enroll in courses. The results showed that workers not in the program left their jobs at about the same rate as the national average. The annualized turnover rate for those who participated was 58 percent. This was not only strikingly lower than the national average of 200 to 300 percent, but also significantly below the national turnover rate for all industries, which is 80 percent.

Rinella and Kopecky (1988) also looked at the effects of the program on employee productivity. They compared sales per employee hour and customers per employee hour for September 1987-August 1988 with figures from the previous year (product costs having remained

nearly constant). They found that productivity went up about three percent during the year following the inception of the educational incentives program. They also observed that retention of workers resulted in a more stable, better managed, and more adequately staffed store. Store ratings on a Burger King quality-services-cleanliness evaluation form rose between seven and 10 percent compared to the previous year. The authors concluded that educational incentive programs produce a winning situation for all concerned -- the service industry as a whole, individual store operators who are trying to retain a productive workforce, and the employees themselves who are trying to obtain a postsecondary education.

The service industry, likely to be America's largest growth sector in the next decade, hires many LEP adults and non-college-bound youth, many of whom are limited-English proficient. The youth are the subject of The Forgotten Half: Non-College Youth in America (William Grant Foundation, 1989). In a chapter calling for increased educational investments by the private sector, the authors recommend

> a changed attitude toward those whom we have called the 'forgotten half'. There is simply no warrant for viewing these youth in a negative light. . .This Commission urges that the same spirit of investing in our future, and in the future of our young, be extended to young people whose education ends in high school, either with or without a diploma. . .When making a dollars-and-cents calculation about education and training, we must consider both the costs incurred and the costs avoided. The former are easier to calculate than the latter. . .We believe. . .that an additional investment in our youth's future makes good economic sense (p.73).

The experience of Burger King provides empirical evidence for that belief.

Bowers (1984) also supports the conclusion that such an investment makes good economic sense. In considering the effects of adult education opportunities on employees, she states, "The undereducated employee is usually considered by industry to be a high risk employee on the basis of turnover and expected tenure. However, evidence exists that the undereducated employee who is given adult educational opportunities becomes safer, more efficient, more satisfied and more highly motivated" (p. 6). She refers to a study at Planters Peanuts (Felton, 1981) which indicated that workers given adult basic education opportunities are less frustrated, more content, more independent, attempt new tasks, are motivated to learn and to apply newly acquired skills, are safer, more qualified workers, and are more capable of participating effectively in training/apprenticeship programs and safety programs.

Adult basic education, English as a Second Language and bilingual programs for LEP workers take on increasing importance when the role of immigrant workers in the American workplace is considered. Gimbert and Semons (1987) corroborate the results of previously cited studies showing that employers find refugee employees to have excellent work habits. Cagampany and Tsang (1988) examined the situation of employers with low wage labor pools in language segmented labor markets. They state that "most employers encounter wage and recruitment pressures because of a

limited supply of skilled workers with good work habits. Turnover is reported to be higher among native born than among immigrant workers. Thus, employers face additional recruitment, employment and training costs because of limited labor supply and too few immigrant workers" (pp. 19-20).

As was mentioned in discussing on-the-job training opportunities for LEP workers, language skill deficits are the major problems for such employees. Cagampang and Tsang (1988) state that employers may find that lack of language skills reduces productivity and leads to costly misunderstandings and miscommunications. For this reason, employers of LEP adults are increasingly providing ESL programs with the view that the cost of training is worthwhile, given the benefits of retaining workers with the desired work habits and attitudes.

Documenting Training Program Costs and Benefits

Bilingual vocational training programs designed to serve LEP adults have sought to be accountable by establishing a set of procedures for defining costs and documenting benefits of their programs. Hanberry and Fleischman's handbook, Determining the Costs and Benefits of Bilingual Vocational Training Programs (1989), provides worksheets and forms for documenting program inputs and costs, estimating program benefits and defining and calculating cost-benefit ratios. Such ratios include training agency input ratios, participant wage ratios, and program cost-benefit ratios. The authors conclude that in order to justify

bilingual vocational training program funding, documentation of the results achieved in relation to the costs of conducting the program is essential. They end with several points regarding the preparation of cost-benefit information for various audiences. They suggest that programs: (1) use advisory panel members, (2) prepare a presentation of the impact data carefully, (3) present key data graphically, and (4) prepare an executive summary of cost-benefit findings.

In his review of research cited earlier, Mincer (1979) calls for better-informed empirical research on the incidence and effects of job training. With even a limited amount of such data, one may conclude that whether industry can afford the cost of English language and basic skills training for its employees or not, it cannot afford to do without it.

Summary

The need for worker competence in basic skills and training to assure this is well documented. The benefits of such training (including language training) are: saved time and training costs, h er quality products and higher productivity, reduced turnover, increased workers' wages and satisfaction, and fewer misunderstandings and miscommunications. In the literature, there is little mention of training benefits, particularly for LEP workers. There are also few empirical, quantitative studies on the benefits of training in general, and even fewer that specifically document the benefits for LEP workers.

SUMMARY AND IMPLICATIONS FOR RESEARCH

The review of the first section of the literature, relating to workplace literacy, indicated that there is substantial use of literacy on the job and that employees are not prepared in school for workplace literacy demands. Other findings of particular importance for LEP employees are that literacy on the job is repetitive and social in nature, both basic and higher cognitive literacy skills are needed, and literacy is used as a reference and information tool.

The literature on job-related language needs of LEP employees stressed that there is a need for aural/oral English language skills for all jobs and reading and writing skills for all but the most basic entry level jobs. The language skills needed are more than those at the literal level of comprehension and include the ability to verify understanding, identify problems and recognize cultural cues. To develop these abilities, language training is most effective when taught in the workplace context.

The cross-cultural communication in the workplace literature emphasized the need for cross-cultural knowledge for recent immigrants and refugees to get and keep jobs and to advance on the job. LEP employees need cultural awareness in academic, personal management and teamwork skills. Both the supervisors and co-workers and the LEP employees can benefit from cross-cultural training programs.

From a review of the training program models for LEP adults key features of successful programs have been discussed. These industry-based training programs for LEP employees are well organized and feedback-oriented, relating to workplace-based objectives, trainee needs, curriculum development, implementation and evaluation. They instruct language skills through job-specific applications and operate with close coordination of ESL and job skill training, and collaboration in planning, implementation and evaluation of all parties involved.

The literature on public/private partnerships stated that a number of these partnerships have gone beyond businesses helping schools to collaboration through addressing mutual needs and sharing program implementation, resulting in benefits for all parties involved. Though there are many barriers to developing partnerships, the authors enumerate key elements for success and stress that the need for ongoing, effective partnerships is acute.

The need for worker competence and training in basic skills and language has been well established. The benefits of such training include saved time, reduced training costs, higher productivity, reduced turnover, increased worker satisfaction, and fewer misunderstandings.

There are a number of areas where further study and research are needed. They are presented in the order of the sections of the literature review.

1. The relationship between literacy and job performance.

2. Analysis of literacy materials used in the performance of particular jobs to determine the nature and difficulty levels of literacy tasks.

3. Comparison of literacy levels of job tasks with assessed literacy skills of employees to develop more suitable workplace assessment tools.

4. The specific basic and higher literacy skills needed by LEP employees obtained through direct observation of LEP adults on the job.

5. Short and long term impacts of language training that go beyond basic skills and include higher cognitive skills.

6. The effectiveness of language training in the workplace context.

7. Cross-cultural dynamics for using team approaches to identifying problems and getting the job done.

8. Cross-cultural issues in workplace leadership development, including taking initiative.

9. Cross-cultural aspects of women in the workplace and women as supervisors.

10. The effectiveness of various training models for LEP adults.

11. Analysis of LEP adult participation in workplace training programs, distinguished from that in educational settings.

12. The experience of training in public/private partnerships of those already employed in the private sector.

13. The perspective and experience of the private sector with partnerships.

14. The needs and participation of LEP adults in partnership activities.

15. The affective and quantified benefits of training, in general, and specifically for LEP workers.

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